

Report Date:  
06-Jan-12 11:25

- ☒ Final Report  
☐ Re-Issued Report  
☐ Revised Report



SPECTRUM ANALYTICAL, INC.

*Featuring*

HANIBAL TECHNOLOGY

## Laboratory Report

Environmental Compliance Services  
588 Silver Street  
Agawam, MA 01001  
Attn: Todd Donze

Project: Kane Scrap Iron + Metal Inc - Chicopee, MA  
Project #: 01-215-977.00.00

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SB41540-01	DA-001	Storm Water	22-Dec-11 00:00	22-Dec-11 15:10
SB41540-02	DA-002	Storm Water	22-Dec-11 00:00	22-Dec-11 15:10

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.  
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110  
Connecticut # PH-0777  
Florida # E87600/E87936  
Maine # MA138  
New Hampshire # 2538  
New Jersey # MA011/MA012  
New York # 11393/11840  
Pennsylvania # 68-04426/68-02924  
Rhode Island # 98  
USDA # S-51435



Authorized by:

Nicole Leja  
Laboratory Director

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.

Please note that this report contains 7 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

*Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at [www.spectrum-analytical.com](http://www.spectrum-analytical.com) for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-M4012).*

**CASE NARRATIVE:**

The samples were received 0.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

**See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.**

**EPA 200.7**

**Blanks:**

1127058-BLK1

The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.

Iron

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\* Reportable Detection Limit

Sample Identification

<u>DA-001</u>	<u>Client Project #</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Received</u>
SB41540-01	01-215-977.00.00	Storm Water	22-Dec-11 00:00	22-Dec-11

<u>CAS No.</u>	<u>Analyte(s)</u>	<u>Result</u>	<u>Flag</u>	<u>Units</u>	<u>*RDL</u>	<u>MDL</u>	<u>Dilution</u>	<u>Method Ref.</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Analyst</u>	<u>Batch</u>	<u>Cert.</u>
Total Metals by EPA 200/6000 Series Methods													
Preservation		Field		N/A			1	EPA 200/6000 methods	23-Dec-11	23-Dec-11	AMT	1126933	
		Preserved											
Total Metals by EPA 200 Series Methods													
7429-90-5	Aluminum	4.99		mg/l	0.0250	0.0167	1	EPA 200.7	28-Dec-11	30-Dec-11	lr	1127058	X
7440-50-8	Copper	0.396		mg/l	0.0050	0.0024	1	"	"	03-Jan-12	"	"	X
7439-89-6	Iron	9.62		mg/l	0.0150	0.0098	1	"	"	30-Dec-11	"	"	X
7439-92-1	Lead	0.345		mg/l	0.0075	0.0028	1	"	"	"	"	"	X
7440-66-6	Zinc	0.414		mg/l	0.0050	0.0025	1	"	"	"	"	"	X
General Chemistry Parameters													
Hardness		286		mg/l CaCO3	0.291	0.242	1	SM 2340B	28-Dec-11	30-Dec-11	lr	1127058	X
Chemical Oxygen Demand		218		mg/l	20.0	6.50	1	HACH8000	29-Dec-11	29-Dec-11	GMA	1127277	X
Total Suspended Solids		3,710		mg/l	50	31	1	SM2540D	28-Dec-11	29-Dec-11	BD	1127152	X

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Sample Identification

<u>DA-002</u>	<u>Client Project #</u>	<u>Matrix</u>	<u>Collection Date/Time</u>	<u>Received</u>
SB41540-02	01-215-977.00.00	Storm Water	22-Dec-11 00:00	22-Dec-11

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 200/6000 Series Methods													
Preservation		Field		N/A			1	EPA 200/6000 methods	23-Dec-11	23-Dec-11	AMT	1126933	
		Preserved											
Total Metals by EPA 200 Series Methods													
7429-90-5	Aluminum	15.6		mg/l	0.0250	0.0167	1	EPA 200.7	28-Dec-11	30-Dec-11	lr	1127058	X
7440-50-8	Copper	0.553		mg/l	0.0050	0.0024	1	"	"	03-Jan-12	"	"	X
7439-89-6	Iron	25.4		mg/l	0.0150	0.0098	1	"	"	30-Dec-11	"	"	X
7439-92-1	Lead	0.385		mg/l	0.0075	0.0028	1	"	"	"	"	"	X
7440-66-6	Zinc	0.792		mg/l	0.0050	0.0025	1	"	"	"	"	"	X
General Chemistry Parameters													
Hardness		136		mg/l CaCO3	0.291	0.242	1	SM 2340B	28-Dec-11	30-Dec-11	lr	1127058	X
Chemical Oxygen Demand		171		mg/l	20.0	6.50	1	HACH8000	29-Dec-11	29-Dec-11	GMA	1127277	X
Total Suspended Solids		740		mg/l	50	31	1	SM2540D	28-Dec-11	29-Dec-11	BD	1127152	X

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# Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1127058 - EPA 200 Series										
<u>Blank (1127058-BLK1)</u>					<u>Prepared: 28-Dec-11 Analyzed: 30-Dec-11</u>					
Zinc	< 0.0050		mg/l	0.0050						
Lead	< 0.0075		mg/l	0.0075						
Iron	0.0646	QB1	mg/l	0.0150						
Aluminum	< 0.0250		mg/l	0.0250						
Copper	< 0.0050		mg/l	0.0050						
<u>LCS (1127058-BS1)</u>					<u>Prepared: 28-Dec-11 Analyzed: 30-Dec-11</u>					
Lead	1.37		mg/l	0.0075	1.25		109	85-115		
Iron	1.40		mg/l	0.0150	1.25		112	85-115		
Zinc	1.32		mg/l	0.0050	1.25		106	85-115		
Aluminum	1.39		mg/l	0.0250	1.25		111	85-115		
Copper	1.37		mg/l	0.0050	1.25		110	85-115		

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# General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
<b>Batch 1127058 - EPA 200 Series</b>										
<u>Blank (1127058-BLK1)</u>						<u>Prepared: 28-Dec-11</u>		<u>Analyzed: 30-Dec-11</u>		
Hardness	< 0.291		mg/l CaCO <sub>3</sub>	0.291						
<u>LCS (1127058-BS1)</u>						<u>Prepared: 28-Dec-11</u>		<u>Analyzed: 30-Dec-11</u>		
Hardness	23.0		mg/l CaCO <sub>3</sub>	0.291	20.8	111		85-115		
<b>Batch 1127152 - General Preparation</b>										
<u>Blank (1127152-BLK1)</u>						<u>Prepared: 28-Dec-11</u>		<u>Analyzed: 29-Dec-11</u>		
Total Suspended Solids	< 5		mg/l	5						
<u>LCS (1127152-BS1)</u>						<u>Prepared: 28-Dec-11</u>		<u>Analyzed: 29-Dec-11</u>		
Total Suspended Solids	86		mg/l	10	89.0	97		90-110		
<b>Batch 1127277 - General Preparation</b>										
<u>Blank (1127277-BLK1)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	< 5.00		mg/l	5.00						
<u>LCS (1127277-BS1)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	49.3		mg/l	5.00	50.0	99		90-110		
<u>Calibration Blank (1127277-CCB1)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	0.126		mg/l							
<u>Calibration Blank (1127277-CCB2)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	1.14		mg/l							
<u>Calibration Blank (1127277-CCB3)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	0.276		mg/l							
<u>Calibration Check (1127277-CCV1)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	49.1		mg/l		50.0	98		90-110		
<u>Calibration Check (1127277-CCV2)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	48.0		mg/l		50.0	96		90-110		
<u>Calibration Check (1127277-CCV3)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	48.7		mg/l		50.0	97		90-110		
<u>Reference (1127277-SRM1)</u>						<u>Prepared &amp; Analyzed: 29-Dec-11</u>				
Chemical Oxygen Demand	74.5		mg/l	5.00	77.5	96		79-115		

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\* Reportable Detection Limit

## Notes and Definitions

**QB1** The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.

**dry** Sample results reported on a dry weight basis

**NR** Not Reported

**RPD** Relative Percent Difference

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

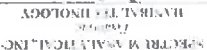
Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:  
Nicole Leja

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ECS - Hydrum

Project Mgr. Todd Dove

1-Na<sub>2</sub>S<sub>2</sub>O<sub>5</sub>, 2-HCl, 3-H<sub>2</sub>SO<sub>4</sub>, 4-HNO<sub>3</sub>, 5-NaOH, 6-Ascorbic Acid, 7-CH<sub>3</sub>COH, 8-NaHSO<sub>4</sub>, 9-Deionized Water

IX--Stomach X2=

G=G:ab C=Composite

Lab Id:	Sample Id:	Date:	Time:
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11/22/21

Received by \_\_\_\_\_

Reinquished by:

1414

2163

6.0

☐ EDD Format

7 E-mail to E-mail to Idorae@

☐ Air conditioner ☒ Local ☐ Refrigerator ☐ Radiator ☐ Freezer ☐ Fan

# CHAIN OF CUSTODY RECORD

Page 1 of 1

**Special Handling:**  
☐ Standard TAT - 7 to 10 business days  
☐ Rush TAT - Date Needed: \_\_\_\_\_  
 All TATs subject to laboratory approval.  
 Min. 2-hour notification needed for rush.  
 Samples disposed of after 60 days unless  
 otherwise instructed.

Site Name: Kame Scrap Iron-Metal, Inc.

Location: Cherokee State: GA

Example 2:  $\frac{1}{2}$

Additional charges may apply.

Amity 528

Q/VQC Reporting Level

State-specific reporting standards:

99

100

of

x	x	Co
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x	x	x
x	x	x
+	+	+

\_\_\_\_\_

☐ Air conditioner ☒ Local ☐ Refrigerator ☐ Radiator ☐ Freezer ☐ Fan

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